

**CLAIMS**

1. A hair cutting apparatus comprising:  
an elongate element heated to a temperature capable of cutting hair;  
5 a vibrating structure, on which said elongate element is mounted; and  
a housing in which the vibrating structure is mounted.
2. Apparatus according to claim 1, wherein vibrations of the vibrating structure causes the  
heat-generating element to pass two or more times over hair as the apparatus is moved slowly  
10 along a hair containing area of the skin.
3. Apparatus according to claim 1 or claim 2, wherein the elongate element is mounted  
between two posts separated by a distance, one or both of the posts comprising a resilient  
material, adapted to tension the wire.  
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4. Apparatus according to claim 3, wherein each springy post is relatively flexible in  
response to force applied in a first direction, and relatively non-flexible in response to force  
applied in a second direction.
- 20 5. Apparatus according to claim 3 or claim 4, wherein at least a portion of the posts  
comprises a guideway against which at least a portion of the wire is mounted.
6. Apparatus according to any of claims 3-5, wherein the posts are electrically conductive.
- 25 7. Apparatus according to claim 6 wherein the wire is connected to the posts.
8. Apparatus according to claim 6 or claim 7, including electrically conductive sockets on  
the structure adapted to receive the posts.
- 30 9. Apparatus according to any of claims 3-8, and including two or more post stabilizers,  
which limit the movement of the posts with respect to the housing in a direction perpendicular  
to an axis of the wire.

10. Apparatus according to any of the preceding claims, and including an eccentric rotating weight that causes the structure to vibrate as the weight rotates.

11. Apparatus according to any of the preceding claims and including a motion detector that  
5 turns the vibrating structure on or off in response to movement of the wire along the area.

12. Apparatus according to claim 11, wherein the motion detector turns the vibrating structure on and off in response to a minimum speed.

10 13. Apparatus according to claim 11 or claim 12, wherein the motion detector provides an indication of speed in excess of a given value.

14. Apparatus according to claim 13 wherein the indication comprises a visual indication.

15 15. Apparatus according to claim 13 or claim 14 wherein the indication comprises a shutting off of the vibration.

16. Apparatus according to any of claims 11-15, wherein the motion detector additionally controls the generation of heat on the elongate element.

20 17. Apparatus according to claim 16, wherein the motion detector turns the heat generating element off in response to a measurement of a speed less than a predetermined speed.

25 18. Apparatus according to claim 16 or claim 17 wherein the motion detector turns the heat generating element off in response to a speed greater than a predetermined speed.

19. Apparatus according to any of claims 11-18, wherein the motion detector comprises at least one of:

a) a mechanical motion detector; and

30 b) an optical motion detector.

20. Apparatus according to any of the preceding claims wherein the heated element is a wire.

21. Apparatus according to any of the preceding claims wherein the apparatus is a hand held apparatus adapted to be pressed against the skin of a user and cut hair on said skin at or near the surface of the skin.

5 22. A method of cutting hair from an area of skin with a vibrating heat-generating element, comprising:

a) heating an elongate element to a temperature high enough to cut the hair;

b) placing the heated elongate element against the area; and

c) vibrating the element in a direction perpendicular to a long axis thereof, so that it  
10 makes multiple passes over the area during the placing.

23. A method according to claim 22 further comprising collecting the cut hair.

24. A method according to claim 23 including moving the cut hair into a receptacle.  
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25. A method according to any of claims 22-24 wherein the elongate element is a wire.

26. A method according to any of claims 22-25 and including moving the elongate element along the surface of the skin of an area from which hair is to be removed by hand.  
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27. A method of manufacturing a tensioned heat-generating wire, comprising:

positioning a wire on two separated posts, at least one of which is resilient in a direction along the wire axis;

tensioning the wire in a direction and by an amount sufficient to deform the posts so that  
25 the positions of the wire on the posts toward each other; and

then fixing the wires in place so that they remain tensioned by the deformed post or posts.

28. A method according to claim 27 wherein at least one of the posts is provided with a guide for the wire and including:

30 positioning the at least one wire guide;

pulling at least one ends of the wire extending past the positions of the wires on the post in a direction having a zero or acute angle with the axis of the post, to bend the post toward the other post.

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5    29.    A method according to claim 27 or claim 28 wherein fixing comprises fixing the wire to its respective post while it is tensioned.

30.    A method according to any of claims 27-29, wherein the positioning occurs at the tip of the at least one post and the fixing occurs proximal to the tip.

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31.    Apparatus produced according to the method of any of claims 27-29.